




**Inductive length measuring system**

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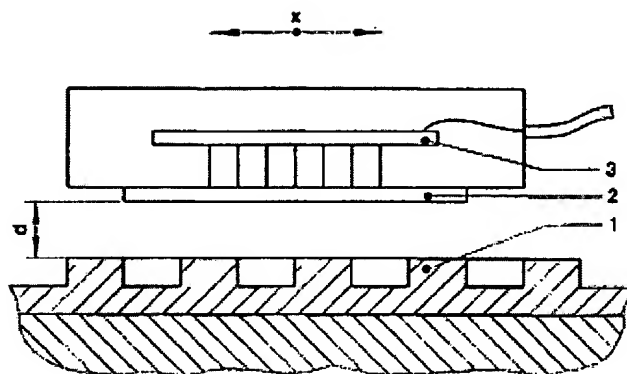
 US6611138 (B2)  
 US2002017902 (A1)  
 JP2002039793 (A)

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**Abstract of EP1164358**

The device consists of a multilayer coil structure and a scale body with at least one scale of variable reluctance or conductivity. At least one emitter is inductively coupled to receivers depending on the relative position to the scale in the measurement direction and generates at least one output signal that is compensated in offset and/or sinusoidal shape and/or amplitude. The device consists of a coil structure and a scale body with at least one scale of variable reluctance or conductivity. The coil structure is of a multilayer form as a combination of coils with contours in the form of quasi-closed windings with several receiver pairs, each pair with two differentially connected receiver elements that can be connected together for generating signals for each of at least two measurement channels. At least one emitter element is inductively coupled to the receiver elements depending on the relative position to the scale in the measurement direction and generates at least one output signal that is compensated in offset and/or sinusoidal shape and/or amplitude.

**FIG. 1**